

(12) UK Patent Application (19) GB (11) 2 158 924 A

(43) Application published 20 Nov 1985

(21) Application No 8410220

(22) Date of filing 19 Apr 1984

(71) Applicants  
John Ronald Clark,  
4 Crondal Road, Exhall, Coventry CV7 9NH.  
David John Clark,  
4 Crondal Road, Exhall, Coventry CV7 9NH

(72) Inventor  
David John Clark

(74) Agent and/or Address for Service  
Walford & Hardman Brown,  
Trinity House, Hales Street, Coventry CV1 1NP

(51) INT CL<sup>4</sup>  
F41C 27/00

(52) Domestic classification  
F3C PX

(56) Documents cited  
GB A 2044417 GB 0321332 US 3564746

(58) Field of search  
F3C

(54) Snap cap

(57) A snap cap 30 for guns is intended for use particularly in association with a locking device 10 fitting into and lockable in a gun cartridge chamber (26). For use of the snap cap 30 the locking device 10 has a longitudinal opening 24, 25 leading from one, outer end thereof. The snap cap 30 includes a disc member 31 which carries a coaxial elongate member 33 which locates in the longitudinal opening. The snap cap 30 includes a resilient abutment member 37 which is engageable by the firing pin of the gun in use.

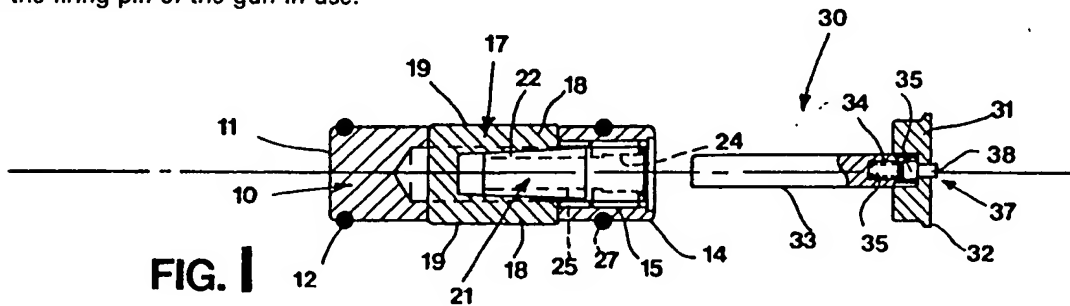


FIG. 1

GB 2 158 924 A



## SPECIFICATION

## Snap ap

- 5 This invention relates to snap caps for guns and in particular to snap caps for use in association with locking devices to be located releasably in a gun to prevent the gun being loaded.
- 10 Snap caps are used with guns to provide a means whereby the firing pins of guns can be released against the cap when the gun is out of use and such snap caps generally provide an abutment locatable in the gun chamber
- 15 which is engaged by release of the firing pin to release the tension on the firing mechanism when the gun is out of use.
- It has been proposed to provide a locking device which is locked into the chamber of a
- 20 gun to prevent the gun being loaded and it is an object of the invention to provide a snap cap which can be use in association with such a locking device.
- According to the invention a snap cap comprises a disc member locatable at one end of a gun chamber remote from the gun muzzle, and an elongate member of smaller cross-section than the disc member extending from the disc member towards the other end of the
- 30 gun chamber to be locatable in a longitudinal opening in a locking device in the gun chamber. Preferably the elongate member is of circular cross-section having an axis common with that of the disc member.
- 35 Conveniently the snap cap includes a resiliently movable abutment member located centrally of the disc member and engageable by the firing pin of the gun when the snap cap is positioned in the gun chamber to absorb the
- 40 energy of the firing mechanism when the firing mechanism is released.
- Further features of the invention will appear from the following description of an embodiment of the invention given by way of
- 45 example only and with reference to the drawings, in which:-
- Figure 1* is a longitudinal section through a locking device and an associated snap cap for guns, and
- 50 *Figure 2* is a side elevation showing the locking device and snap cap in position in the chamber of a gun.
- Referring to the drawings a locking device suitable for use in the chamber of shot guns is
- 55 shown in association with a snap cap.
- The locking device includes a generally cylindrical member 10 having an inner end 11 around which is formed a groove for an O ring 12. The opposite outer end 14 of the
- 60 body is formed with an opening extending longitudinally of the body towards the inner end 11.
- At the outer most end of the opening is a screw-threaded portion 15 and inwardly of the
- 65 portion 15 the opening is a bore having along

- part of its length diametrically opposed slots 16. The slots receive a generally U-shaped locking element 17 which is positioned so that the space between arms 18 of the U is directed towards the outer end 14 of the body 10. The outer sides 19 of the arms 18 project through the slots 16 and, in the non-locking position of the element 17, the sides 19 lie flush with the cylindrical surface of the body 10. The ends of the arms 18 lie closely adjacent the ends of the slots 16.

An adjustable locking member 21 is located in screw-threaded engagement with the screw-threaded portion 15 of the opening through a headed portion of the member 21. A tapered portion 22 of the member extends inwardly between the arms 18 of the locking element, the portion 22 tapering inwardly towards the inner end of the body. The portion 22 is of a circular section and, in the operative position of the member 21, the arms 18 of the element 17 contact the portion 22 on their correspondingly tapered radially inner surfaces.

- 90 The locking member 21 is formed with an oval or elliptical cross-section opening 24 extending inwardly from its outer end for receiving a key (not shown) whereby the member 21 is rotated relative to the body 10 and the
- 95 element 17. The key has a rod of a section corresponding to the cross-section of the opening 24 and a handled or a knurled portion formed at the end of the rod for manually grasping and for turning the rod to engage and disengage the device from the gun chamber.

From the elliptical opening 24 extends a cylindrical bore 25 connecting the opening 24 with the opposite end of the locking member

105 21.

- As seen in Fig. 2 the device is arranged to be located in the chamber 26 of a gun normally for receiving a gun cartridge. The chamber is generally of a slightly tapering shape, widening towards the breech opening. The locking device is dimensioned to take account of the tapering chamber shape to achieve a close fit in the chamber and to require minimal movement of the locking element 17 to secure the device in the chamber
- 115 26. Thus the O ring 12 is dimensioned to be a close fit at the inner end of the chamber and an 'O' ring 27 at the other end of the body is of slightly larger dimension to fit into the outer end of the chamber.

- Similarly the outer surfaces 19 of the arms 18 are slightly tapered to conform to the tapered walls of the chamber 26 and to be closely adjacent the walls in the non-locking position of the device. As the locking member 21 is rotated by the key towards a locking position of the element 17 the tapered portion 22 engages and bears on the inner surfaces of the arms 18, as described, thereby causing
- 125 the arms to be moved radially outwards into

engagement with the walls of the gun chamber to lock the device in position.

Once locked in the chamber the key is removed and stored in a secure place and the device cannot then be easily removed from the gun. With the device in position in the chamber the gun can not be loaded with cartridges. Shotguns with two chambers will be fitted with a device in each chamber.

The devices are released by engaging the key in the opening 24, rotating the key and releasing the locking element 17.

By having the opening 24 tapered the key will engage in the opening with sufficient resistance to disengagement to enable the device to be pulled out of the chamber simply by pulling the device out with the key, after release of the element 17.

Conveniently the body 10 of the device is formed of anodised aluminium and the locking device 17 and locking member 21 are formed of brass. The O rings 12 and 27 are formed of resilient material such as rubber.

A snap cap 30 is associated with the locking device and can be fitted in the locking device after the device is secured in the chamber.

The snap cap 30 includes a disc member 31 having a circumferential lip 32 which, as seen in Fig. 2, fits into an enlarged recess provided at the end of the gun chamber 26.

A cylindrical elongate member 33 is coaxial with and extends from the disc member 31 so that in use the member 33 can pass along and be received in the opening 24 and the bore 25.

One end of the elongate member 33 is in screw-threaded engagement with one end of the disc member 31 and at that end of the member 33 is formed a closed bore 34 in which is located a compression spring 35 and the head 36 of an abutment member 37.

The disc member 31 has a central opening through which extends a portion 38 of the abutment member 37, the head 36 being of larger diameter than the portion 38 so that the member 37 is captive in the bore 34 and in the central opening of the member 31.

The spring 35 urges the abutment member 37 towards the position shown in Fig. 1 so that when the firing pin (not shown) is released it strikes the end of the member 37 protruding through the disc member 31 and absorbs the energy in the firing mechanism.

It will be seen that the snap lock is simply inserted and removed from the locking device. When the gun is out of use the locking device secures the gun against insertion of a cartridge and the snap lock enables the tension on the firing mechanism to be released by release of the firing pin which engages the snap lock.

#### CLAIMS

1. A snap cap comprises a disc member

locatable at one end of a gun chamber remote from the gun muzzle, and an elongate member extending from the disc member towards the other end of the gun chamber to be located in a longitudinal opening in a locking device in the gun chamber.

2. A snap cap according to claim 1 wherein the elongate member is coaxial with the disc member and is of smaller cross-section than the disc member.

3. A snap cap according to claim 1 or 2 wherein the locking device with which the snap cap is associated in the chamber includes a generally cylindrical body and locking means for engaging with the walls of the chamber to lock the device in the chamber, the longitudinal opening extending from one end of the body towards the other end.

4. A snap cap according to any one of the preceding claims wherein the disc member houses a resiliently movable abutment member engageable by the firing pin of the gun when the snap cap is positioned in the gun chamber.

5. A snap cap according to any one of the preceding claims wherein the longitudinal member is of circular cross-section and extends through a correspondingly sectioned opening in locking means of the locking device.

6. A snap cap substantially as described with reference to the drawings.

Printed in the United Kingdom for  
Her Majesty's Stationery Office, Dd 8818935, 1985, 4235.  
Published at The Patent Office, 25 Southampton Buildings,  
London, WC2A 1AY, from which copies may be obtained.